

ABSTRACT

Nucleotide sequences are isolated from *Drosophila melanogaster* that code for proteins essential for larval viability. These proteins are useful for discovering new insecticides based on the essentiality of the nucleotide sequences for *Drosophila* larval viability. Further provided are recombinant proteins and methods for identifying inhibitors to these proteins. Protein inhibitors active in the methods disclosed herein are useful as insecticidal, ectoparasiticial, antiparasitic, anthementhic and acaracidal agents.